

Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (Currently Amended): A lithium ion secondary battery comprising:

a positive electrode capable of absorbing and desorbing lithium ion;

a negative electrode capable of absorbing and desorbing lithium ion;

a porous film interposed between said positive electrode and said negative electrode; and

a non-aqueous electrolyte;

wherein said porous film is adhered to a surface of at least one of said positive electrode and said negative electrode,

said porous film comprises a filler and a resin binder,

a content of said resin binder in said porous film is 1.5 to 8 parts by weight per 100 parts by weight of said filler, and

said resin binder comprises a plurality of resin binders including core-shell type rubber particles and other resin binder, [[and]]

said rubber particles have an adhesive surface portion including at least an acrylonitrile unit, an acrylate unit, or a methacrylate unit,

said other resin binder comprises at least one selected from the group consisting of fluorocarbon resins, cellulose resins, and polyvinyl pyrrolidone, and

the ratio of said core-shell type rubber particles to the total amount of resin binders is 20 to 80 wt. %.

2-4 (Canceled)

5 (Original): The lithium ion secondary battery in accordance with claim 1, wherein said filler comprises a mixture of a large particle group and a small particle group, and an average particle size A of said large particle group and an average particle size B of said small particle group satisfy the formula (1):

$$0.05 \leq B/A \leq 0.25.$$

6 (Canceled)

7 (Original): The lithium ion secondary battery in accordance with claim 1, wherein said filler includes at least Al_2O_3 .

8-13 (Canceled)

14 (Original): The lithium ion secondary battery in accordance with claim 1, wherein said positive electrode and said negative electrode are wound interposing said porous film and a separator.

15 (Canceled)

16 (Currently Amended): ~~[[A]] The lithium ion secondary battery comprising:~~
~~—— a positive electrode capable of absorbing and desorbing lithium ion;~~
~~—— a negative electrode capable of absorbing and desorbing lithium ion;~~
~~—— a porous film interposed between said positive electrode and said negative electrode; and~~
~~—— a non-aqueous electrolyte;~~
~~—— wherein said porous film is adhered to a surface of at least one of said positive electrode and said negative electrode;~~
~~—— said porous film comprises a filler and a resin binder,~~
~~—— a content of said resin binder in said porous film is 1.5 to 8 parts by weight per 100 parts by weight of said filler,~~

~~—— said resin binder at least includes an acrylonitrile unit, an acrylate unit, or a methacrylate unit, and~~

~~—— in accordance with claim 1, wherein an average pore size of micropores in said porous film obtained by a bubble-point method is 0.02 to 0.09 μm .~~

17 (Canceled)

18 (Previously Presented): The lithium ion secondary battery in accordance with claim 16, wherein said filler includes at least Al_2O_3 .

19 (Canceled)

20 (Previously Presented): The lithium ion secondary battery in accordance with claim 16, wherein said positive electrode and said negative electrode are wound interposing said porous film and a separator.

21 (Currently Amended): [[A]] The lithium ion secondary battery comprising:

~~—— a positive electrode capable of absorbing and desorbing lithium ion;~~

~~—— a negative electrode capable of absorbing and desorbing lithium ion;~~

~~—— a porous film interposed between said positive electrode and said negative electrode; and~~

~~—— a non-aqueous electrolyte;~~

~~—— wherein said porous film is adhered to a surface of at least one of said positive electrode and said negative electrode,~~

~~—— said porous film comprises a filler and a resin binder,~~

~~—— a content of said resin binder in said porous film is 1.5 to 8 parts by weight per 100 parts by weight of said filler,~~

~~—— said resin binder at least includes an acrylonitrile unit, an acrylate unit, or a methacrylate unit, and~~

~~_____in accordance with claim 1, wherein~~ an elongating percentage of said porous film is 15% or more.

22 (Previously Presented): The lithium ion secondary battery in accordance with claim 21, wherein said filler comprises a mixture of a large particle group and a small particle group, and an average particle size A of said large particle group and an average particle size B of said small particle group satisfy the formula (1):

$$0.05 \leq B/A \leq 0.25.$$

23 (Canceled)

24 (Previously Presented) The lithium ion secondary battery in accordance with claim 21, wherein said filler includes at least Al_2O_3 .

25 (Canceled)

26 (Previously Presented): The lithium ion secondary battery in accordance with claim 21, wherein said positive electrode and said negative electrode are wound interposing said porous film and a separator.

27 (Currently Amended): ~~[[A]]~~ The lithium ion secondary battery comprising:

- ~~_____a positive electrode capable of absorbing and desorbing lithium ion;~~
- ~~_____a negative electrode capable of absorbing and desorbing lithium ion;~~
- ~~_____a porous film interposed between said positive electrode and said negative electrode; and~~
- ~~_____a non-aqueous electrolyte;~~
- ~~_____wherein said porous film is adhered to a surface of at least one of said positive electrode and said negative electrode;~~
- ~~_____said porous film comprises a filler and a resin binder;~~

~~_____ a content of said resin binder in said porous film is 1.5 to 8 parts by weight per 100 parts by weight of said filler, and~~

~~_____ in accordance with claim 1, wherein~~ an amount of said resin binder is smaller in a first surface side where said porous film is in contact with said surface of said electrode, and larger in a second surface side opposite to said first surface side.

28 (Canceled)

29 (Previously Presented): The lithium ion secondary battery in accordance with claim 27, wherein said filler includes at least Al_2O_3 .

30 (Previously Presented): The lithium ion secondary battery in accordance with claim 27, wherein said resin binder has a decomposing temperature of 250 °C or more.

31 (Previously Presented): The lithium ion secondary battery in accordance with claim 30, wherein said resin binder has a crystalline melting point of 250 °C or more.

32 (Previously Presented): The lithium ion secondary battery in accordance with claim 27, wherein said porous film comprises a single film, and an amount of said resin binder gradually increases from said first surface side toward said second surface side.

33-35 (Canceled)

36 (Previously Presented): The lithium ion secondary battery in accordance with claim 27, wherein said positive electrode and said negative electrode are wound interposing said porous film and a separator.

37 (Canceled)